



LEVEL *U*

OPERATIONS RESEARCH REPORT

⑭ AFCC-17-ORR-80 *✓*

⑨ Final rept. *✓*

⑥ AFCC

C³ P²/MCAP

STAFF STUDY.

⑩ David L. / Reusser

⑪ MAY 1980

⑫ 30

PREPARED BY:

STUDIES & ANALYSIS
HQ AIR FORCE COMMUNICATIONS *✓*

COMMAND

SCOTT AFB, ILLINOIS 62225

80 10 9

037 *pt*

DISTRIBUTION STATEMENT A
Approved for public release;
Distribution Unlimited

395 286

DDC FILE COPY

AD A090490

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER 17-ORR-80	2. GOVT. ACCESSION NO. AD-A090490	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) AFCC C ³ P ² /MCAP Staff Study	5. TYPE OF REPORT & PERIOD COVERED Final	6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) David L. Reusser, Capt, USAF	8. CONTRACT OR GRANT NUMBER(s)	
9. PERFORMING ORGANIZATION NAME AND ADDRESS Management Studies Division Studies & Analysis HQ AFCC, Scott AFB IL 62225	10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS	
11. CONTROLLING OFFICE NAME AND ADDRESS	12. REPORT DATE May 1980	13. NUMBER OF PAGES 30
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)	15. SECURITY CLASS. (of this report) Unclassified	15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report) Distribution unlimited.		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) C ³ P ² Communications Planning MCAP Planning Interrelationships ADP Planning		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) The separate communications (C ³ P ²) and ADP (MCAP) planning processes within AFCC were studied to determine interrelationships and inconsistencies. The specific problem treated was the need to develop a systematic, formal cross reference between the C ³ P ² and MCAP. The study concludes that the process for developing the MCAP and C ³ P ² has far reaching implications both within AFCC and the entire USAF. The conclusion is also drawn that the best solution possibilities for resolving conflict between the MCAP and C ³ P ² processes lie		

Block 20 (cont'd)

~~is~~ within the power of HQ USAF/XOK/ACD to develop and implement.

↑

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR FORCE COMMUNICATIONS SERVICE
SCOTT AIR FORCE BASE, ILLINOIS 62225



28 MAY 1980

REPLY TO
ATTN: SA (Capt Reusser, 4775)

SUBJECT CS 19 Jan 80 Tasking to Provide a Staff Study on the AFCC C³P²/MCAP Processes

TO AFCC/CS

PROBLEM

1. A systematic formal cross-reference process must be developed to reduce the potential for conflict₃ between the AFCC Command and Control Communications Programming Plan (C³P²) and the AFCC Major Command Automatic Data Processing Plan (MCAP).

FACTORS BEARING ON THE PROBLEM

2. Facts.

a. This study was performed by the Directorate of Studies and Analysis, Management Studies Division. The action officer was selected based on familiarity with₂ the overall AFCC mission, but who had a limited background with both the C³P² or MCAP processes, to ensure an objective evaluation.

b. In April 1978, the Secretary of the Air Force announced a proposed reorganization of HQ USAF and the realignment of selected separate operating agencies (SOAs). One action, included in the realignment, dissolved the Air Force Data Automation Agency (AFDAA) and aligned its field units under AFCC.

c. The Deputy Commander for Data Automation, AFCC/CD (established 30 Jun 78), directs centralized management of all data automation resources assigned to AFCC, ensures that major commands (MAJCOMs)/SOAs have a readily available source of support for their automatic data processing (ADP) requirements, and it maximizes the use of Air Force ADP resources in order to provide ADP support to the Air Force and other designated agencies as directed by HQ USAF.

d. The Programs Division, AFCC/XOXP, of the Plans and Resources Directorate, is the command focal point for C3 programming. As such, the division is responsible to comply with the Air Staff tasking (AF/XOK Ltr, 17 May 80 with Asst Vice CSAF Ltr, 27 Jun 78 attached) as the Air Force C³P² Executive Agent for documenting POM year resource requirements Air Force wide.

e. AFR 100-18, USAF Ground Communications-Electronics Planning and Program Management, is applicable to all C-E programming activities in the Air Force and other agencies that acquire C-E facilities and systems through Air Force channels. It provides direction and guidance on programming processes for fixed-ground C-E requirements, including preparing and processing statements of requirements (SORs) and implementation plans. The SOR is the document used to set forth new requirements for fixed-ground C-E facilities or services.

PROVIDING THE REINS OF COMMAND

f. AFR 300-7, Automatic Data Processing Planning, provides the guidance for preparing ADP plans, projected automation requirements (PARs), and MAJCOM/SOA intentions concerning ADP resource requirements. The regulation also provides procedures and guidance for aligning the ADP planning process with planning, programming, and budgeting. PARs are submitted to identify ADP requirements far enough in advance to obtain Air Staff validation and to adjust funding levels through the program objective memorandum (POM) process. PARs identify requirements in the program years (two thru six years from the current fiscal year) while data automation requirements (DARs) are aimed at requirements for the current fiscal year. Even though DARs can be submitted in the out-years in accordance with AFR 300-2, most ADP requirements are identified through PARs because it is unlikely the requirement will receive program approval unless "grass roots" support was obtained in the out-years.

g. The C^3P^2 provides a formalized management approach for translating and integrating validated C^3 requirements into a near term (five-year) fiscally-oriented program that produces visible links to planning.

h. The MCAP forecasts PARs expected to materialize in the period from 2-6 years from the fiscal year in which the plan is published, allowing Air Staff time to plan, program, and budget in advance for ADP resources needed to accomplish those projected requirements.

i. The technological convergence of communications and computers has already begun; as an example, AFCC took the lead on the Air Force Automated Message Processing Exchange (AMPE) and Interservice AMPE. Telecommunications systems are extending and integrating their use of computers for storage of information, conversion of electronic signals from one form to another, switching, and network control. Computers increasingly interconnect through communications networks to provide their users with access to more computing power and sources of information. In fact, AFCC ADP policy now states, "AFCC will converge C-E and ADP planning, programming, requirements processing and governing regulations wherever it contributes to end-to-end systems support for the Air Force."

j. The growing use of information processing in communications systems is due to the dramatic improvements in cost, performance, and the size of computer hardware. An information processing system contains three basic units: the computing or processing unit; memory systems for storing information; and input/output units for maintaining external context. The cost of the information processing and storage units have fallen by a factor of three every two years or so for the past twenty years - a total cost decrease of more than 10,000-fold. This means that a few hundred dollars in 1980 would by the equivalent computing power of several million dollars in the mid-1950s. The size of processing and storage units have also shrunk by a factor of about 10,000 while their speed (measured in the number of instructions or calculations processed per second) has increased approximately 50,000-fold. These trends are expected to continue at least into the early 1980s.

k. Computer processors have gone through three major technological changes in components; from vacuum tubes to transistors, from transistors to integrated circuits, and from the early forms of integrated circuits to today's large-scale integrated circuits. A computer processor built with large-scale integrated technology is called a micro-processor.

l. Micro-processors are finding their way into communications equipment of all sorts, including switching facilities, typewriters, data terminals, and even the telephone itself. The micro-processor signifies the demise of the centralized computer controlling the equipment connected to it. In its place, "intelligent" terminals and devices distribute logic throughout a communications network and perform complex tasks under the control of their own, built-in micro-processors.

m. A review of computer technology trends suggest that computer developments will strongly influence the technical evolution of telecommunications systems and the communications services they offer.

n. State-of-the-art electronic switches and data terminals already have information-processing capabilities, and equipment built in the 1980s will incorporate increasingly greater computing power. From a technical standpoint, communications and processing functions should often be combined as, for example, in terminals providing remote access to information files or switches that can be programmed to provide data-processing services. These technological changes will cause problems for those who want a clear division between "data communications" and "data processing." Technology will blur this distinction even more in the near future.

o. Intelligent terminals in the office will also lead to some substitution of telecommunications for face-to-face meetings. It is by no means clear to what extent telecommunications may reduce travel, but teleconferencing services are expected to grow significantly in the energy conscious society of the 1980s. A recent study reports that audio conferencing alone is suitable for 22 percent of business meetings that are currently conducted face-to-face. Adding graphic transmission capability would make teleconferencing suitable for an additional 17 percent of business meetings.

3. Assumptions.

a. The technological convergence of communications and computers will continue at an ever increasing rate. There are many political, legal, and technological ramifications involved in this convergence, but most parties generally agree that past differences between communications and computers no longer exist.

b. AFCC will assume increasing responsibility for overall management of USAF ADP. AFCC was assigned the task of "administrative consolidation" of MAJCOMs C³P²s into the USAF C³P² in 1979. With CD only being established the previous year, coupled with the overall favorable evaluation by the USAF Inspector General of AFCC's role as the C³P² Air Staff executive agent, it seems only a matter of time until USAF ACD considers conferring executive agent status to the AFCC/CD community for administrative consolidation of MAJCOM MCAPs.

4. Criteria

a. Optimize Ease of Customer Input - Since the formation of the CD function at HQ AFCC, users of telecommunications and computers are finding it increasingly necessary to input to both the C³P² and MCAP processes in order to identify their communications and data automation requirements. Because of the

technological convergence of communications and computers and the need to identify communications support for computers and vice versa, the user is tasked with providing basically the same information to two different systems for a single requirement. This increases user workload, increases redundancy, creates a higher potential for conflict between data in the two documents, and increases the chance for confusion concerning the requirement. To the degree input can be standardized and simplified, the two documents will benefit through more efficient processing and the reduced possibility of conflicting data.

b. Reduce Potential for Conflict - This was the bottom line of CS's tasking, "... the potential for conflict between our C³P² and MCAP documents could occur...." Though the 1979 MCAP cross-referenced ADP requirements with the C³P² and informal procedures were established to reconcile C³P² requirements with the MCAP, discussions with respective staff officers disclosed last minute cross-referencing was accomplished on a catch-as-catch-can basis. This is due mainly to the administrative mechanics involved in assembling and publishing documents of this nature and the fact there is limited time from when all the requirements are finally assembled and when the finished product has to be forwarded to Air Staff. Once the two documents leave the headquarters, they essentially lose their command identity and are tracked by Program Elements (PEs) by Air Staff Program Element Monitors (PEMs). It is at this point where it is essential that information contained in one document agree with the data in the other if "grass roots" support from the PEM for a particular requirement is expected. It is at this confluence that aspects of C-E and ADP come together in a particular program element to define a single MAJCOM requirement and where the words and numbers will present an accurate picture of that requirement, or on the other hand, lead the PEM to believe the MAJCOM has not done its homework.

c. Reduce Redundancy - With the numerous planning, programming and budgeting documents, any reduction of duplication would certainly increase efficiency and reduce the possibility of conflict between the two requirement processes. In discussing the Military Airlift Command's (MAC) C³P² and MCAP with their staff officers, the point was made that approximately 30 percent of the C³P² was automation, while 90 percent of the MCAP appeared in the MAC C³P². For AFCC, the figures are approximately 20 and 70 percent respectively, but the main point is that there is considerable redundancy between the documents which could lead to conflict.

d. Avoid Change for Change Sake - The C³P² and MCAP requirement processes are complex and usually take a couple POM cycles to really understand. Continually changing these processes only adds to that complexity and increases the potential for confusion and conflict.

e. Promote Central Management of Command Requirements - With two independent requirement processes and management structures, there must be some methodology to insure planning, programming, and budgeting are consistent with command objectives.

f. Acceptable to Both Management Structures - Potential conflict resolution between the C³P² and MCAP can only be accomplished through procedures which benefit both processes, not at the expense of one or the other.

5. Definitions.

See Attachment 1.

DISCUSSION

6. When initiating the study, the most difficult aspect of trying to compare the two vertical management structures of their respective requirement processes was that AFCC is the Air Staff executive agent for the USAF C³P², while there is no corresponding delegation for the MCAP (see Attachment 2). As a result, though the AFCC MCAP was a unique, stand-alone document, the AFCC C³P² was only one among the various MAJCOM C³P²s that had to be consolidated into the USAF C³P². This made for a difficult comparison of otherwise parallel structures.

a. When comparing the purpose of the two documents (see Attachment 3), the words are somewhat different but the basic underlying principle is the same. Through these documents, the command is attempting to escape from the "reactionary mode" of managing requirements to one where programming and planning are tied together. In fact, the most difficult task in the development of the two documents is projecting out-year requirements linked to planning. Attachment 4 references some of these planning documents which contain C³P² and MCAP requirements.

b. The timing of the two processes is basically the same (see Attachment 5). Administrative instructions for both documents come out in the April-May timeframe and feedback from the previous years C³P²/MCAP is received in June; but in order for AFCC to have ample time to assemble and publish the USAF C³P², MAJCOM C³P²s have to be completed in July and forwarded to the Procuring/Implementing Commands for their cost data inputs. The cost data is then incorporated in September and the MAJCOM C³P²s are completed and ready for final consolidation into the USAF C³P². The MAJCOM MCAPs are also completed and forwarded to USAF/ACD in the October timeframe. Requirements prioritization and document cross referencing occur in July for the MCAP and September for the C³P².

c. The content of both documents is also basically the same (see Attachment 6). A point of interest is that the information contained in the MCAP follows the PAR format, while the same information in the C³P² exhibits are not the same as a SOR.

d. After examination of the process, purpose, timing, and content, determination of who actually uses the documents was examined. There are basically two interest groups or levels that use the AFCC C³P² and MCAP. The PEMs are mainly concerned with the project exhibits of the C³P² and Sections 3 and 4 of the MCAP. This is where background information, justification, funding profiles, and impact statements help the PEMs develop their briefings for the respective panels. To the extent the MAJCOM can provide comprehensive data on a particular requirement, the easier it is for the PEM to develop a sound, logical presentation, which in turn means a higher probability of panel acceptance. The C³ panel and the Data Automation Panel (DAP) on the other hand, are more concerned with the command priorities contained in the C³P² executive summary

Accession For	NTIS G-1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	DTIC F	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Unannounced	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Justification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
By	Distribution/			
	Availability Codes			
	Avail and/or			
	Special			
Dist				

A

and Section 2 of the MCAP. Based on the MAJCOM priority list, the panels determine which requirements will receive funding.

e. Six basic problem areas were identified in the 1979 C³P² and MCAP.

(1) No formal cross reference structure - Informal procedures were in effect but they were accomplished on a catch-as-catch-can basis.

(2) Common program elements - Both the C³P² and MCAP contained common PEs without some central management structure to ensure complementary data would be input to both documents.

(3) Redundant information - Both the documents, contained similar information for the same requirement, only reformatted to meet that particular plan's document format.

(4) Both documents are reviewed against each other at Air Staff - This is not a problem in itself, but is a point where the two requirement processes come together in the form of consolidated PEs and a conflict between the two documents would be most visible and detract from command credibility.

(5) Two vertical structures for user - Even though AFCC is responsible for both standardized ADP and C-E requirements, the user has to submit requirements for two different processes to get one requirement.

(6) Two staffs working same issues - The two management structures that support the two requirement processes, oftentimes find the two staffs working the same requirement independent of each other.

f. Five options were developed to address the aforementioned problems and help resolve potential conflict between the two documents.

Option 1 - Leave both documents as they are.

Option 2 - Add AFCC/MCAP as volume to AFCC/C³P².

Option 3 - Add AFCC/C³P² annex to AFCC/MCAP.

Option 4 - Hybrid - single standardized format.

Option 5 - Develop formal cross reference procedures.

(1) Though Option 1 (see Attachment 7) is easiest and probably most palatable to both management structures, it does nothing to resolve the problems and potential conflict that have already been discussed. The AFCC C³P² and MCAP are both published, then the MCAP is forwarded to USAF/ACD and the C³P² is consolidated with 15 other C³P²s by AFCC/XOXP to make up the USAF C³P², which then is forwarded to USAF/XOK. As a point of interest, USAF/ACD receives approximately 24 separate documents from MAJCOMs and SOAs. The Automatic Data Processing System (ADPS) Master Plans (AMPs) are developed by the Air Force ADPS managers for standard Air Force systems and are viewed as a "systems perspective" of the MAJCOM MCAPs.

(2) Options 2, 3, and 4 can be discussed together, as they are basically three different ways of attempting to combine the AFCC C³P² and MCAP into one document which this study calls the Command and Control Communications/Computer Programming Plan - C⁴P² (see Attachment 8). Because the two documents would be physically attached, there would be a higher likelihood conflict between requirement data would be more evident, but none of the options would really ease user input workload, reduce redundancy, streamline procedures, or promote central management of command requirements. In addition, the situation would result in a nonstandard input to USAF XOK/ACD. AFCC would still consolidate the 16 C³P²s into the USAF C³P² and USAF/ACD would still receive 24 MCAPs the first week of each October. It is also unlikely that either management structure, at least at this time, would be willing to either partially or totally change the format of their respective documents.

(3) Option 5 - Because the main thrust of the staff study was to identify areas of potential conflict between the AFCC C³P² and MCAP, it seemed most reasonable that identification and resolution of potential conflict between the two documents should occur within the command. Formal cross referencing procedures must be indorsed and directed by USAF XOK and ACD, but internal management actions by HQ AFCC will provide the real solutions to the conflict issue (see Attachment 9). By establishing formal cross reference procedures, requirements would not have to appear in both documents, thus reducing redundancy and easing user input workload, while reducing the potential for conflict by having only one set of data for a particular requirement. The internal actions would promote the central management of command requirements and the overall benefits that would accrue through these actions, coupled with the cross reference procedures, should validate the need for change.

g. As the study unfolded and potential problems were identified, corrective actions were already either implemented or in the planning/coordination stage. These "intervening events" were evidence that potential problems had already been identified and corrective actions initiated. Both the draft AFR 100-5 (C³P²) and AFR 300-7 (MCAP) are incorporating language to alert users of C-E and ADP of cross reference obligations between the two requirement processes. USAF/XOK (C³P²) and ACD (MCAP) had rewritten the administrative instructions for the respective documents so when a C-E or ADP requirement was identified, described, and justified in one document, that requirement did not have to be described and rejustified in the other document, as long as the requirement was cross referenced to the original document by page and paragraph number to reflect the total resource involvement of the project. Obviously because both documents are used mainly by the PEMs, the document being referenced had to be available to the Air Staff PEMs. AFCCR 300-12, Procedures for Requesting and Managing Data Automation Requirements, which is in the draft stage, describes policy and procedures for processing ADP requirements submitted under the AF 100-series directives. But of all the "intervening events" proposed or being implemented, the one that has the most impact on the outcome of this staff study is the draft AFCCR 27-X, Program Evaluation Group (PEG) Structure, regulation.

h. All DOD forces, units, and activities fall under major force programs (MFP). These are very broad designations (see Attachment 10) and are used primarily at the very highest levels within the DOD. The DOD arrays each MFP with a series of PEs for use by the military departments and other defense agencies

for defining their military and support activities for a five year period. Therefore, each Air Force unit or activity falls under a specific PE. There are over 1600 PEs in DOD and over 550 assigned to the Air Force. The basic reporting level in the AFCC C³P² and MCAP is the PE. Because of continual force structure changes, the funds and manpower required to maintain the forces, units, and activities represented in the PEs and sub-elements must be reviewed on an annual basis. During this review, and based on forecasted, anticipated, or known changes, resource requirements must be programmed/budgeted as far in advance as possible. The C³P² and MCAP, using the PE structure and a near-term future projection format, provide the means to accomplish this annual resource requirement review and forecast.

i. There are 15 PEs (see Attachment 11) in which AFCC has identified command requirements. Seven of these PEs are common to both the C³P² and MCAP, while six are unique to the C³P² and two are unique to the MCAP. Through these PEs, AFCC requirements continue through the POM process, though their command identity has fallen away. Though command requirements are identified in only 15 of the PEs, AFCC has resources, mainly manpower, identified in over 90 PEs, which increases the potential for confusion and conflict between the two documents when considering the numerous sources inputting the two documents (see Attachment 12) without some structure that can adequately influence both requirement processes.

j. AFCCR 27-X gives the command that influencing factor. Just as at Air Staff, this regulation sets up an AFCC PEM structure to provide central management of all command requirements (see Attachment 13). Using this methodology, AFCC will have its own experts on the individual PEs so there will be some PEM responsible for advocating and monitoring the respective elements throughout the entire cycle. PEM training was initiated the week of 12 May 80 and AFCCR 27-X should be finalized and published by the end of summer 1980.

k. Though AFCCR 27-X appears to go farthest at resolving conflict between the two requirement processes and management structures, this resolution will occur only after ADP considerations have been added to the initial draft. Though the regulation will set up a single command requirement priority list, it will have little effect if no provisions are included to input the AFCC MCAP and AMPs. With inclusion of these ADP considerations, the end result will ensure computer and communications support for AFCC high-priority requirements and requirement priorities will be complementary and consistent between the AFCC C³P² and MCAP.

CONCLUSION

7. Both the AFCC C³P² and MCAP processes have far reaching implications not only for the future of AFCC, but also for the entire Air Force. During the course of the study, it was apparent there were ongoing actions at HQ USAF and AFCC to reduce the potential conflict that could occur between the two documents. The best solution to resolving this potential conflict was HQ USAF/XOK/ACD actions to establish formal cross reference procedures and implementation of HQ AFCCR 27-X.

ACTION RECOMMENDED

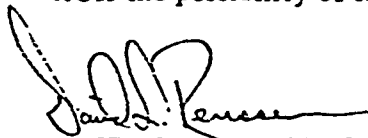
8. AFCC XO and CD continue efforts to resolve potential conflict between the AFCC C³P² and MCAP through consistent and complementary language in both documents and also in the following:

AFR 100-5 (C³P²)
AFCCR 27-X

AFR 300-7 (MCAP)
AFCCR 300-12

9. CS sign letter of transmittal providing results of this staff study to AFCC/XO and CD.

10. Based on research fallout (Annex I), that extends beyond the basic scope of the original tasking, AFCC/XO and CD should consider pursuing with USAF/ACD and XOK the possibility of improving the current parallel management structures.



DAVID L. REUSSER, Capt, USAF
Management Studies

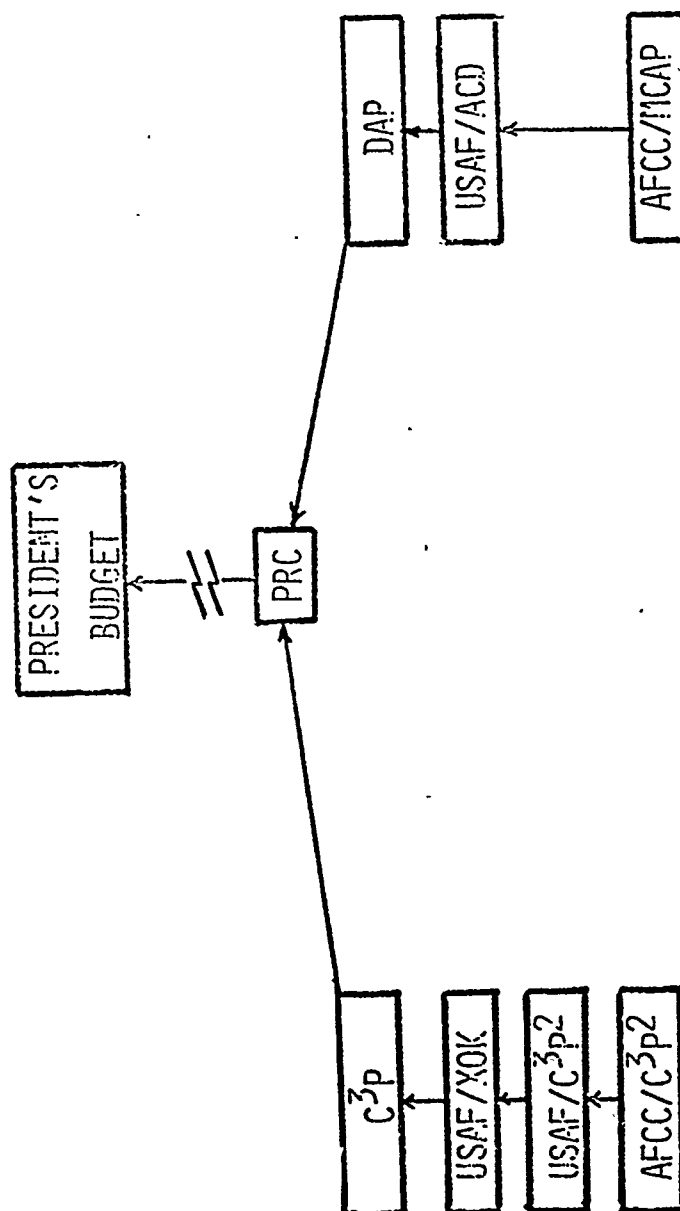
- 14 Atch
- 1. Definitions
- 2. Processes
- 3. Purpose
- 4. Links to Planning
- 5. Timing
- 6. Content
- 7. Option 1
- 8. Options 2, 3, & 4
- 9. Option 5
- 10. Major Force Programs
- 11. Program Elements
- Current System
- 13. Draft AFCCR 27-X, Program Evaluation Group (PEG) Structure
- 14. Annex I

DEFINITIONS

ADP	Automatic Data Processing	CDIP	Consolidated Defense Intelligence Program
ADPE	Automated Data Processing Equipment	CCP	Consolidated Cryptologic Program
ADPS	Automated Data Processing System	DAR	Data Automation Requirement
ADPX	ADP Exhibits	DCA	Defense Communications Area
AFADPP	Air Force ADP Plan	DECCO	Defense Commercial Communications Office
AFCAC	Air Force Computer Acquisition Center	DPD	Data Project Directive
AFCCPC	Air Force Communications Computer Programming Center	DPI	Data Processing Installations
AFDSC	Air Force Data Services Center	DPP	Data Project Plan
AFDSDC	Air Force Data System Design Center	ECA	European-Communications-Area
AFDSEC	Air Force Data Systems Evaluation Center	EEIC	Element of Expense/Investment Code
AMP	ADPS Master Plan	E&I	Engineering and Installation
AMIG	ADP Management Information System Guidance	EIMS	Engineering/Installation Management System
AMIS	ADP Management Information System Submission	FEDSIM	Federal Computer Performance Evaluation & Simulation Center
AUTODIN	Automatic Digital Network	FYDF	Five Year Defense Program
BUD	Air Force Budget	GSA	General Services Administration
CEM	Communications Electronic Meteorological	H6060	Honeywell 6000 Series Computer System
COMM	Communications	IDHS	Intelligence Data Handling System
COMSEC	Communications Security	MAJCOM	Major Command
C ³ P ²	Command and Control Communications Programming Plan	MCAP	Major Command ADP Plan
CPU	Central Processing Unit		

MEP	Management Engineering Program	SCA	Southern Communications Area
NCA	Northern Communications Area	SOA	Separate Operating Agency
OSD	Office of the Secretary of Defense	SOR	Statement of Requirements
PAR	Projected Automation Requirements	SOW	Statement of Work
PBD	Program Budget Decision	TACCA	Tactical Air Command Communications Area
PCA	Pacific Communications Area	TCCF	Tactical Consolidated Communications Facility
PCSP	Programmed Communications Support Program	TERPS	Terminal Instrument Procedures
PDM	Program Decision Memorandum	TRACALS	Traffic Control & Landing System
PMO	Program Management Office	TSR	Telecommunications Service Request
POC	Point of Contact	TSS	Time Sharing System
POM	Program Objective Memorandum	WIN	WWMCCS Intercomputer Network
PPBS	Planning, Programming, and Budgeting System	WPE	Word Processing Equipment
PPGM	Planning Programming Guidance Memorandum	WPC	Word Processing Center
SACCA	Strategic Air Command Communications Area		

PROCESS



PURPOSE

C³p2

PROVIDE A FORMALIZED MANAGEMENT APPROACH
FOR TRANSLATING AND INTEGRATING VALIDATED
C³ REQUIREMENTS INTO A NEAR TERM (5 YEAR)
FISCALLY-ORIENTED PROGRAM THAT PRODUCES
VISIBLE LINKS TO PLANNING.

MCAP

FORECAST PROJECTED AUTOMATION REQUIRE-
MENTS (PARs) EXPECTED TO MATERIALIZE IN
AFCC IN THE PERIOD FROM TWO THROUGH SIX
YEARS FROM THE FISCAL YEAR IN WHICH THE
PLAN IS PUBLISHED, ALLOWING AIR STAFF
TIME TO PLAN, PROGRAM, AND BUDGET IN
ADVANCE FOR ADP RESOURCES NEEDED TO
ACCOMPLISH PROJECTED REQUIREMENTS

LINKS TO PLANNING

PROGRAM MANAGEMENT DIRECTIVES (PMD)	PLANS
STATEMENTS OF NEED (SON)	COMSEC EQUIPMENT PROGRAM (CEP)
DATA AUTOMATION REQUIREMENT (DAR)	AF PLANNING GUIDANCE
BASE COMM-ELECT PLANS (BCEP)	PROGRAMMING PLANS (PPLANS)
USAF TRACALS PLAN	USAF PROGRAM, COMM-ELECT (PC)
USAF PROGRAM, COMM-ELECT SUPPORT PROGRAM (PCSP)	
MCAP	C3p2
MILITARY CONSTRUCTION PROGRAM	COMMAND POM
USAF PLAN FOR TELECOM	TERMINAL PRECISION APPROACH CONTROL PROGRAM (TPACP)
MAJCOM OBJECTIVE PLANS	AUTOMATIC DATA PROCESSING SYSTEM (ADPS)
	MASTER PLAN (AMP)

TIMING

APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV
<u>C³P²</u> ADMINISTRATIVE INSTRUCTIONS TO ALL MAJCOMS	FEEDBACK PREVIOUS YEAR'S C ³ P ² / MCAP	C ³ P ² DEVELOPED & VALIDATED COPIES TO PROCURING & IMPLEMENTING COMMANDS FOR COST DATA	COST DATA INCORPORATED C ³ P ² REQUIREMENTS PRIORITIZED MCAP CROSS- REFERENCE	AFCC C ³ P ² COMPLETE TO USAF/XOK	USAF C ³ P ² FORWARDED		
<u>MCAP</u> REQUIREMENTS PRIORITIZED C ³ P ² CROSS- REFERENCE							

CONTENT

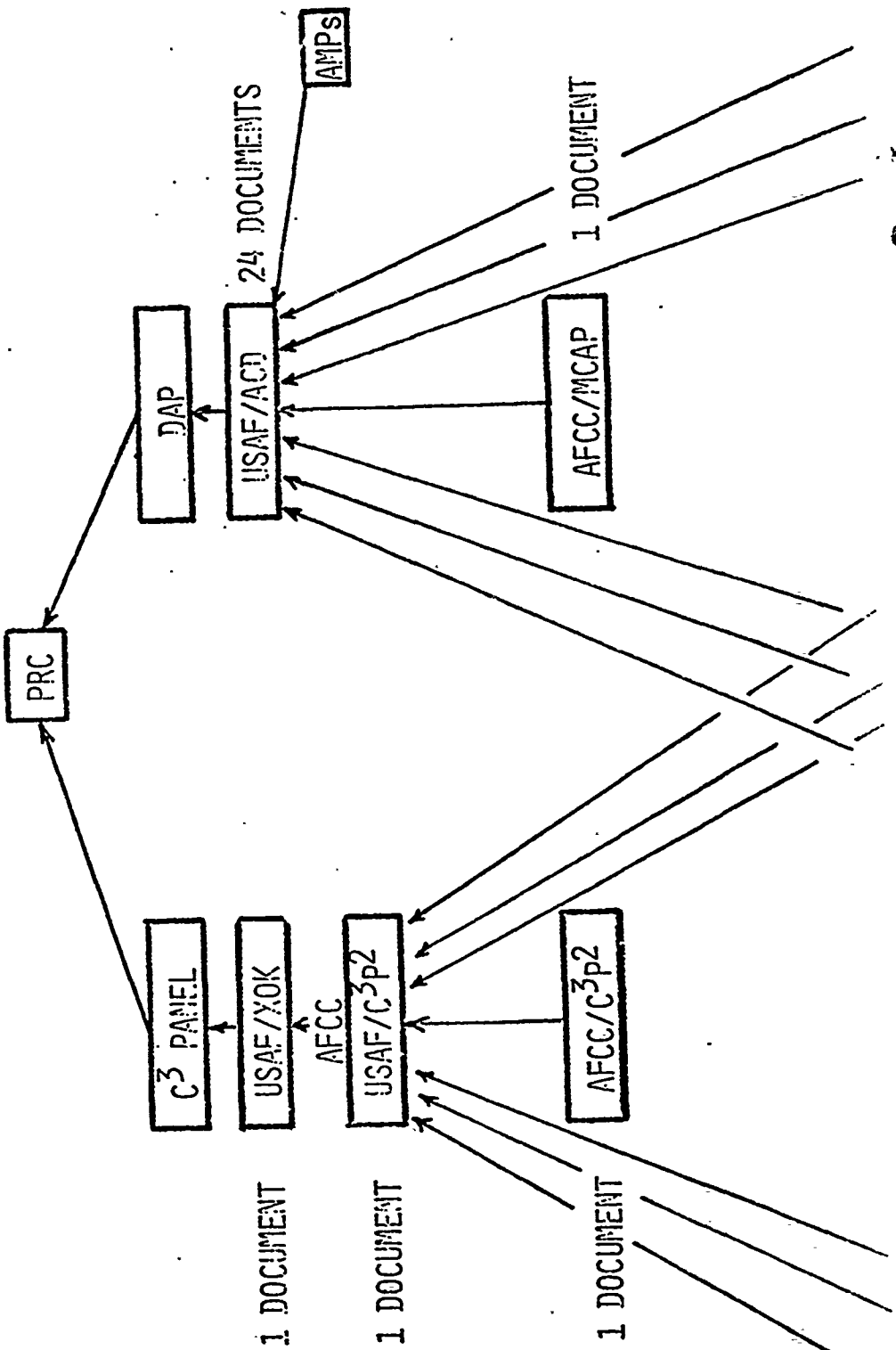
_____ MCAP _____ C3p2 _____
 PAR #: NEW REQ: ADPS/ADS: _____
 MAJCOM: PRIORITY: PEC: _____
 TITLE: _____
 DESCRIPTION: _____
 JUSTIFICATION: _____
 MISSION IMPACT: _____
 APPROVAL STATUS: _____
 APPROVAL DOCUMENT: _____
 MILESTONE SCHEDULE: _____

COST DETAIL

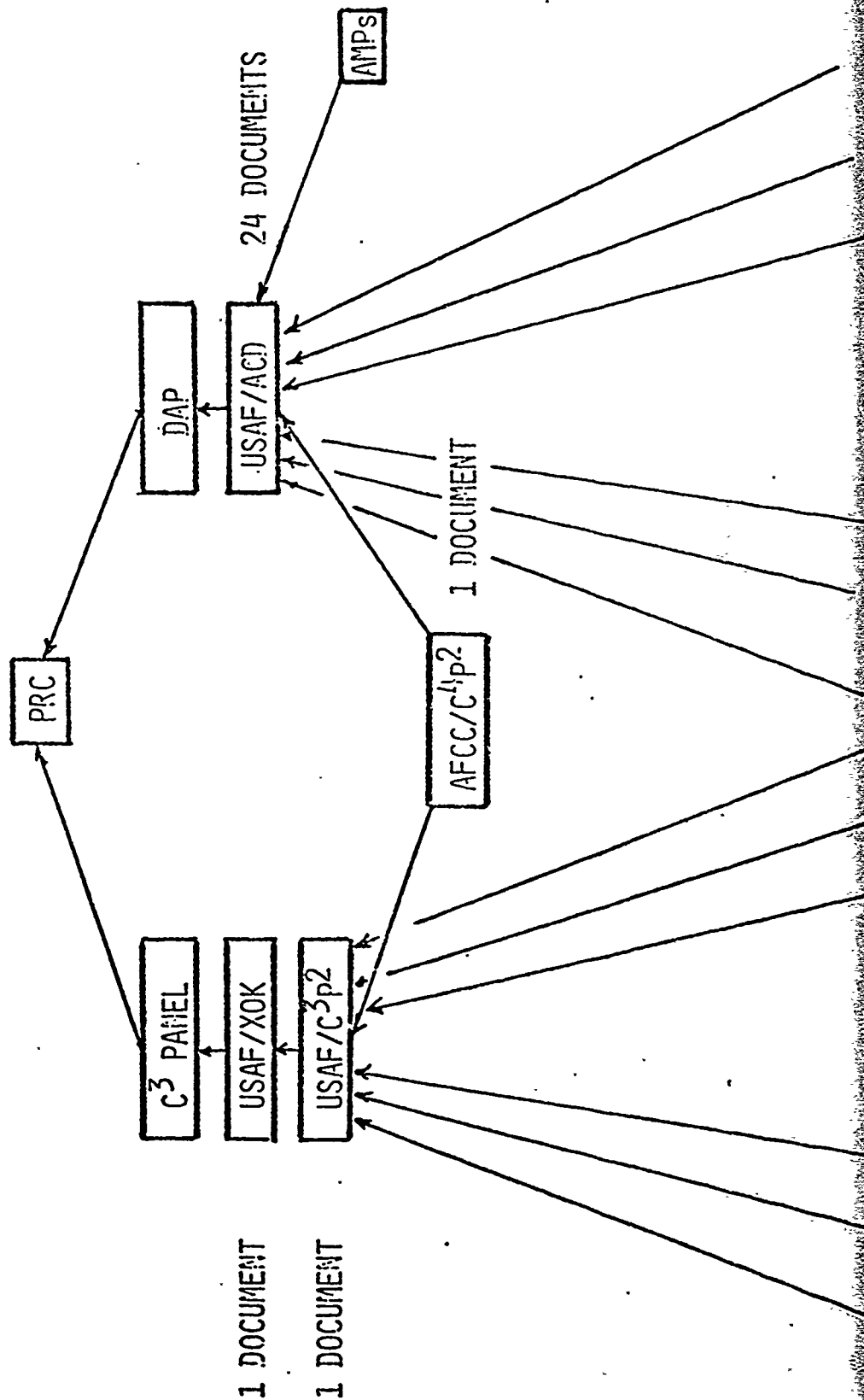
 PAR #: NEW REQ: ADPS/ADS: _____
 MAJCOM: PRIORITY: PEC: _____
 TITLE: _____
 ISSUE: _____
 CAUSE: _____
 ALTERNATIVE: _____
 BENEFITS: _____
 IMPACT: _____
 APPROVAL ACTIONS/
 PLANS
 MILESTONES: _____

FUNDING PROFILE

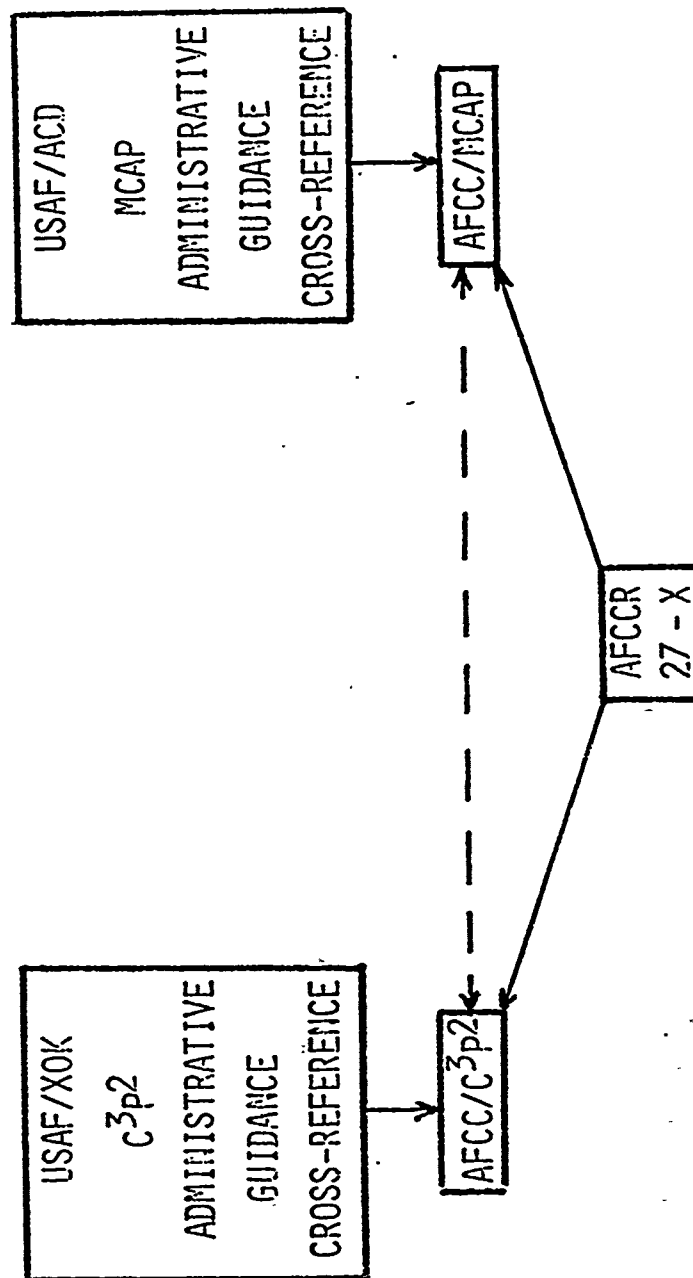
7 NOV 1960



OPTIONS 2, 3, AND 4



OPTION 5



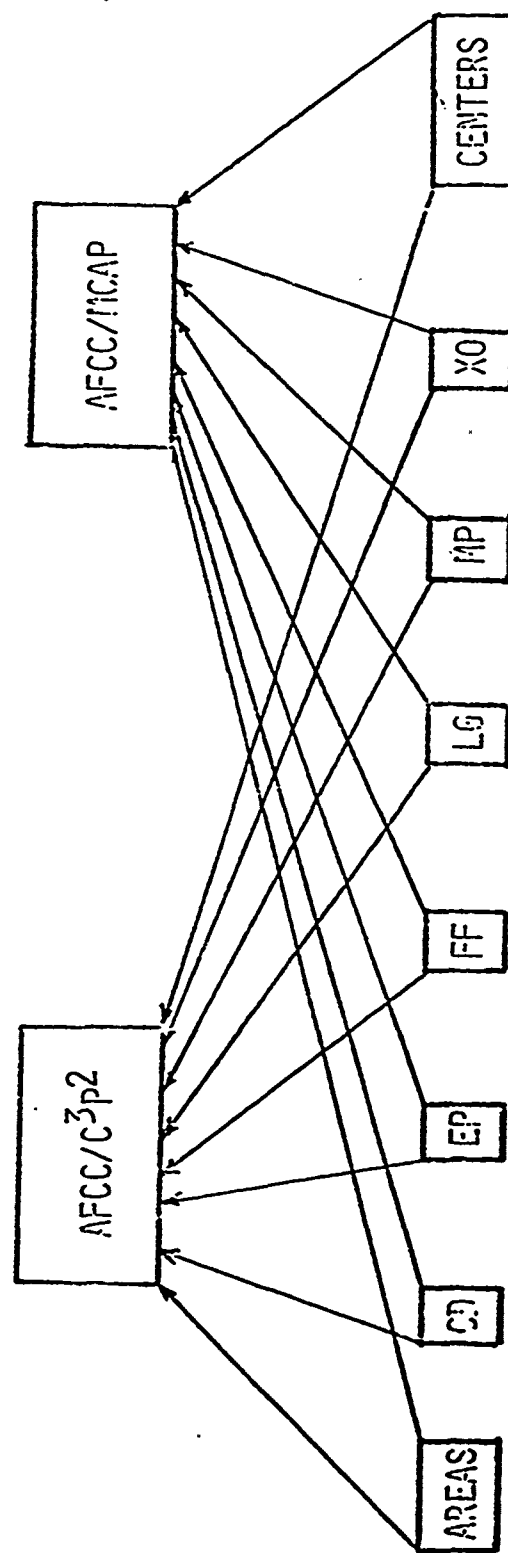
MAJOR FORCE PROGRAMS (MFPs)

MFP	
1	STRATEGIC FORCES
2	GENERAL PURPOSE FORCES
3	INTELLIGENCE AND COMMUNICATIONS
4	AIRLIFT AND SEALIFT
5	GUARD AND RESERVE
6	RESEARCH AND DEVELOPMENT
7	CENTRAL SUPPLY AND MAINTENANCE
8	TRAINING, MEDICAL
9	ADMINISTRATION AND ASSOCIATED ACTIVITIES
10	SUPPORT OF OTHER NATIONS

PROGRAM ELEMENTS

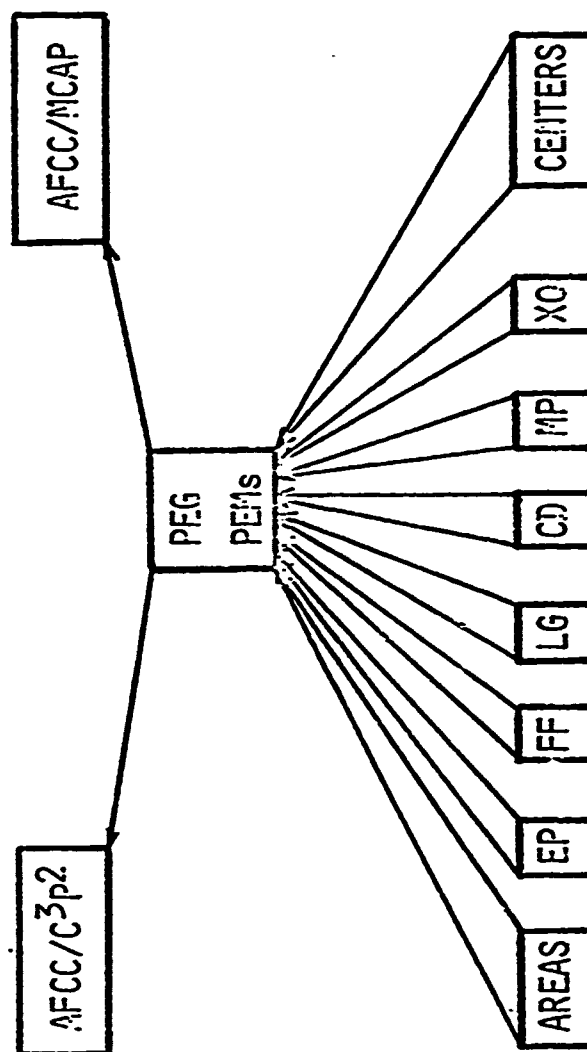
<u>C³P²</u>	<u>COMMON</u>	<u>MCAP</u>
27412	33112	33151
27422	33126	91212
28010	33998	
33110	35114	
33601	35123	
35117	35124	
	35198	

CURRENT SYSTEM



AFCCR 27-X

PROGRAM EVALUATION GROUP (PEG) STRUCTURE
PROGRAM ELEMENT MONITORS (PEMs)



ANNEX I

1. When the staff study was first initiated, and documents were being researched, this forward from the 1979 MCAP seemed to capture the essence of what this staff study was all about.

MCAPs and C³P²s, and SORs and DARs are really only similar sets of data on pieces of paper with different names on the top and fostered by traditional management hierarchies. One planning process or one requirements process or one acquisition process or, for that matter, one management structure is not pushing the boundaries of anything except, not doing business in the most optimal fashion.

2. As the staff study progressed, initial steps at examining methods of combining the AFCC C³P² and MCAP were abandoned as it was evident they were products of two much larger parallel management structures that realistically resist any major sweeping changes. However, as C-E and ADP technologies continue to converge, it is only rational and logical to conclude that the management structures that provide the policy and procedures for these two technologies will also come closer together, whether by design or default.

3. Stage 1 (Atch 1) is where the management structures are today. Users of C-E and ADP select among multiple requirement documents to input one of the two management structures, both at one MAJCOM. The other noticeable difference is that there is no parallel equivalent with the USAF C³P², which AFCC acts as Air Staff executive agent. On one side of this structure all 16 C³P²s are consolidated by AFCC into one USAF C³P² which is forwarded to USAF/XOK, while on the other side, all 24 MCAPs and AMPs are sent directly to USAF/ACD.

4. In Stages 2 and 3 (Atch 2), it is hypothesized that either a single requirement document will evolve or USAF/ACD will confer Air Staff executive agent status to AFCC/CDX to administratively consolidate all MCAPs and AMPs into a USAF MCAP. The precedent has been set on the C³P² side of the house and the result would be a more uniform parallel management structure. The single requirement document would reduce redundancy, standardize requirement formatting, and overall provide the user with a more efficient and effective manner of identifying requirements.

5. Stage 4 (Atch 3) would be a natural outgrowth of Stages 2 and 3. Once AFCC had mastered the USAF MCAP process (probably two POM cycles), and the single requirement document was the standard for both documents, it would seem only natural that both documents would be combined into one document, possibly called the Command and Control Communications/Computer Programming Plan (C³P⁴). During the interim, C-E and ADP would continue to converge and past differences would continue to blur.

6. In Stage 5 (Atch 4), it would seem only natural that the C³ Panel and Data Automation Panel would start meeting in joint session to consider those requirements where C-E and ADP were common. Though there was some thought given to the efficiency of collapsing USAF/XOK and ACD together, the political reality of bureaucratic processes would make this a highly unlikely consideration.

7. Robert J. Ringer, a noted writer on management processes wrote,

Reality is not the way you wish things to be, nor the way they sometimes appear to be, but the way they really are. Either you acknowledge reality and use it to your benefit, or it will automatically work against you.

To the extent we as a command accept the reality of the technological convergence between C-E and ADP, to that extent AFCC will be going about the business of the Air Force in the most effective and efficient way.

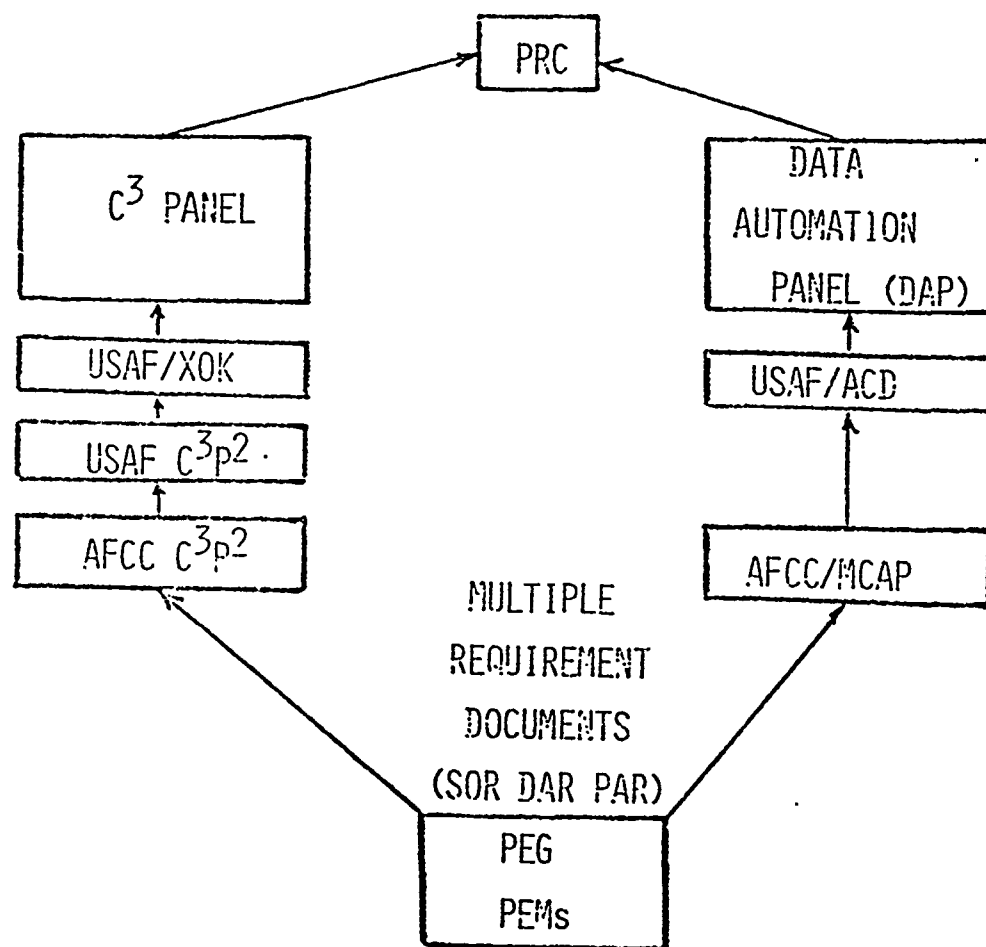


DAVID L. REUSSER
Management Studies

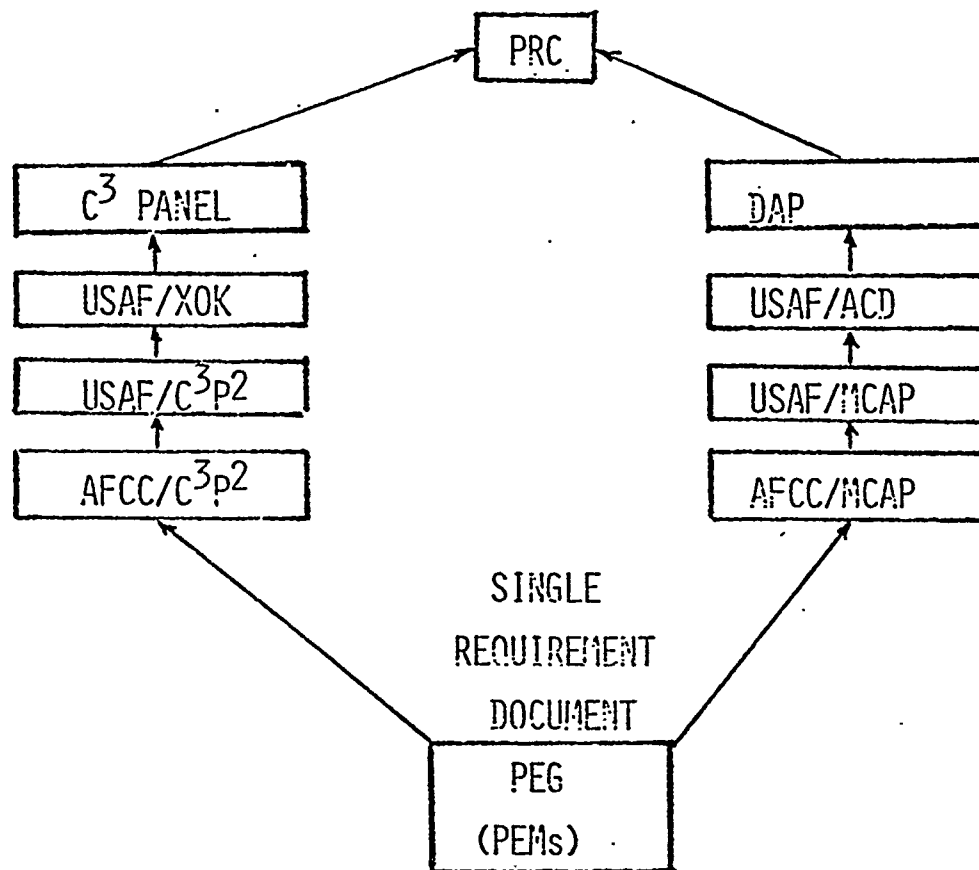
4 Atch

1. Stage 1
2. Stages 2 & 3
3. Stage 4
4. Stage 5

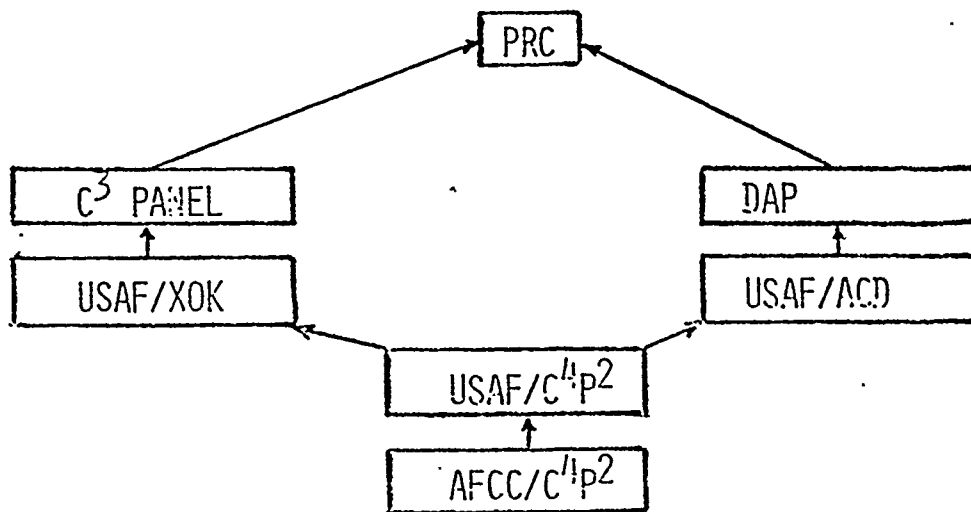
STAGE 1



STAGES 2 AND 3



STAGE 4



STAGE 5

